

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A luminescence-conversion LED, comprising:
an LED chip emitting primary radiation with a peak wavelength in the range of 300 to
470 nm, the primary radiation being converted partly or completely into secondary longer-wave
radiation by photoluminescence by at least one phosphor which is exposed to the primary
radiation of the LED,

wherein the at least one phosphor is a nanophosphor of having a mean particle size d_{50}
that lies in the range of 1 to 50 nm, and

wherein the nanophosphor is a garnet A₃B₅O₁₂ which is doped with a rare earth element
D, the proportion of D being at most 0.9 mol % of a component A of the garnet A₃B₅O₁₂.

2. (Previously Presented) The LED as claimed in claim 1, wherein the at least one
phosphor is dispersed in an encapsulating compound which is exposed to the primary radiation,
the encapsulating compound comprising insulating material.

3. (Previously Presented) The LED as claimed in claim 1, wherein a blue emitting
primary radiation of a peak wavelength of 420 to 470 nm is used, together with a secondary
yellow emitting phosphor.

4. (Previously Presented) The LED as claimed in claim 1, wherein a UV emitting primary radiation of a peak wavelength of 330 to 410 nm is used, together with three secondary red, green and blue emitting phosphors.

5. (Previously Presented) The LED as claimed in claim 4, further comprising a phosphor system comprising: Y₂O₂S:Eu for red; ZnS:Cu,Al or ZnS:Cu,Mn or ZnS:Cu for green; and, SCAP or ZnS:Ag for blue.

6. (Canceled).

7. (Previously Presented) A luminescence-conversion LED, comprising:
an LED chip emitting primary radiation with a peak wavelength in the range of 330 nm to 470 nm, the primary radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor which is exposed to the primary radiation, the at least one phosphor being a nanophosphor having a mean particle size d₅₀ that lies in the range of 1 to 50 nm,

wherein the nanophosphor has an absorption in the range of the peak wavelength of the primary radiation of less than 50% and is made to luminesce by an activator, and
wherein the nanophosphor has a reflection of greater than 50%, and

wherein the nanophosphor is a garnet A₃B₅O₁₂ which is doped with a rare earth element D, the proportion of D being at most 0.9 mol % of a component A of the garnet A₃B₅O₁₂

8. (Canceled).

9. (Previously Presented) The LED as claimed in claim 7, wherein the nanophosphor includes an activator, the concentration of the activator is at most 75% of the concentration of the activator included in an identical μ m-phosphor, so that the activator concentration of the μ m-phosphor is higher and serves as a reference corresponding to 100%, the μ m-phosphor being chosen such that it has a high absorption of more than 50% in the range of the peak wavelength of the primary radiation, but an identical phosphor with low concentration of the activator has low absorption of at most 30% in the range of the peak wavelength of the primary radiation.

10. (Canceled).

11. (Previously Presented) The LED as claimed in claim 1, wherein the chip is connected to a voltage source via electrically conductive terminals.

12. (Previously Presented) The LED as claimed in claim 11, wherein the voltage source provides a voltage of at most 5 V.

13. (Canceled).

14. (Withdrawn) A method of manufacturing a luminescence conversion LED with a LED chip emitting primary radiation with a peak wavelength in the range of 300 to 470 nm, the radiation being converted partly or completely into secondary longer-wave radiation by

photoluminescence by at least one phosphor, wherein the at least one phosphor is a nanophosphor having a mean particle size d_{50} that lies in the range of 1 to 50 nm, wherein the nanophosphor is applied directly to the LED chip by means of CVR or CVD.

15. (Withdrawn) A method of manufacturing a luminescence conversion LED with a LED chip emitting primary radiation with a peak wavelength in the range of 300 to 470 nm, the radiation being converted partly or completely into secondary longer-wave radiation by photoluminescence by at least one phosphor, wherein the at least one phosphor is a nanophosphor having a mean particle size d_{50} that lies in the range of 1 to 50 nm, wherein the nanophosphor is applied to the chip by means of printing, spraying or ink-jet.

16-21. (Canceled).